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EXAMINER

MARTINEZ, BRITTANY M

ART UNIT

PAPER NUMBER

1793

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/661,567	Applicant(s) MANU, ALEXANDER	
	Examiner BRITTANY M. MARTINEZ	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 65,66,68-78,95 and 99-101 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 65,66,68-78,95 and 99-101 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Application

Applicant's arguments/remarks and amendments filed February 5, 2009, have been carefully considered. **Claims 65, 66, 68-78, 95 and 99-101** are pending in the instant application, with **Claims 65, 66, 68, 74, 77 and 95** amended and **Claims 99-101** added. **Claims 1-64, 67, 79-94 and 96-98** have been cancelled. **Claims 65, 66, 68-78, 95 and 99-101** have been examined.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. **Claims 95 and 99** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. **Claim 95** recites the limitation "it" in the 2nd line of the claim. There is insufficient antecedent basis for this limitation in the claim.
4. **Claim 99** recites the limitation "it" in the 5th and 6th lines of the claim. There is insufficient antecedent basis for this limitation in the claim. With regard to **Claim 99**, the "it" makes the process steps unclear. It is not clear whether the organic waste is processed before being placed in the receiving module.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. **Claims 65, 66, 68-72, 95 and 99-101** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lazareth et al. (FR 2,248,994) (refer to translation provided on February 23, 2004) in view of Kubota et al. (US 5,634,600).
2. With regard to **Claim 99**, Lazareth discloses a process for producing a biodegradable solid of organic matter comprising: providing a receiving module removably mounted to a processing module; reducing the organic waste to pieces before it is dried by operating a reducing element located in the receiving module while the receiving module is mounted to the processing module; transferring the pieces from the receiving module to the processing module while the receiving module is mounted to the processing module; mixing the pieces with a binder (chosen based on the desirable physical properties of the product) to form a mixture; and forming a unitary biodegradable solid from the mixture wherein the reduced organic waste pieces are converted to a unitary biodegradable solid (Lazareth, Figures 1 and 2; 1st-3rd pages of translation; Claims 1-2 and 5-6).
3. With regard to **Claim 100**, Lazareth discloses the transferring further comprising the pieces traveling from the receiving module through at least one passageway to the processing module (Lazareth, Figures 1 and 2; 1st-3rd pages of translation; Claims 1-2 and 5-6).

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4. With regard to **Claim 101**, Lazareth discloses the transferring further comprising the pieces traveling to a form in the processing module (Lazareth, Figures 1 and 2; 1st-3rd pages of translation; Claims 1-2 and 5-6).

5. With regard to **Claim 65**, Lazareth discloses forming the mixture further comprising mixing the pieces with water (Lazareth, 3rd page of translation).

6. With regard to **Claim 66**, Lazareth discloses forming the unitary biodegradable solid comprising forming the mixture into a predetermined shape (Lazareth, Figures 1 and 2; 1st-3rd pages of translation; Claims 1-2 and 5-6).

7. Lazareth does not explicitly disclose collecting organic matter by placing the organic matter in the receiving module when it is removed from the processing module (**Claim 99**); a biodegradable binder (**Claim 99**); drying the mixture (**Claim 99**); drying comprising heating the mixture (**Claim 68**); the removal of liquid water from the organic waste mixture (**Claim 69**); the reuse of the recovered water (**Claim 70**); the capture of water vapor resulting from drying of the shaped organic waste mixture (**Claim 71**); the conversion of the captured water vapor to liquid water (**Claim 72**); nor drying the mixture to a moisture content at which it is free of odors caused by microbial activity (**Claim 95**).

8. With regard to **Claim 99**, the capability of the receiving module to be carried to locations remote from the processing module for receipt of organic matter would be desirable in the process of Lazareth because it would allow for easier transport and handling of household refuse. Thus, it would have been obvious to one of ordinary skill in the art to make the receiving module separable for this purpose.

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9. With regard to **Claim 99**, Lazareth discloses that the binder is chosen based on the desirable physical properties of the product (Lazareth, 2nd page of translation). It would have been obvious to one of ordinary skill in the art to make the binder biodegradable in order to obtain an environment-friendly product.

10. With regard to **Claim 99**, Kubota discloses a method of processing organic waste comprising: providing a receiving module removably mounted to a processing module; collecting organic waste by placing the organic waste in the receiving module when it is removed from the processing module; reducing the organic waste to pieces by operating a reducing element located in the receiving module while the receiving module is mounted to the processing module; and drying the mixture to obtain a dried organic waste product (Kubota, "Abstract;" c. 1, l. 45-64; Claims 1 and 3).

11. With regard to **Claim 68**, Kubota discloses drying comprising heating the mixture (Kubota, "Abstract;" c. 1, l. 45-64; Claims 1 and 3).

12. With regard to **Claims 69-72, and 95**, Kubota discloses removal of liquid water from the organic waste mixture, the reuse of the recovered water (Kubota, c. 1, l. 13-24), the capture of water vapor resulting from drying of the shaped organic waste mixture, the conversion of the captured water vapor to liquid water (Kubota, c. 1, l. 13-24 and 45-63), and drying of the raw organic waste to a moisture content characteristic of lack of malodor (Kubota, c. 1, l. 29-35; c. 4, l. 45-67).

13. Thus, it would have been obvious to one of ordinary skill in the art to modify the process taught by Lazareth with the drying and water treatment/process step order

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taught by Kubota in order to maximize the efficiency of waste processing, minimize wasteful use of water, and obtain a more desirable end-product.

14. **Claims 66, 68-72, 95 and 99-101** are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsberg (US 4,102,263) in view of Kubota et al. (US 5,634,600).

15. With regard to **Claim 99**, Forsberg discloses a process for producing a biodegradable solid of organic matter comprising: providing a receiving module removably mounted to a processing module; reducing the organic waste to pieces before it is dried by operating a reducing element located in the receiving module while the receiving module is mounted to the processing module; transferring the pieces from the receiving module to the processing module while the receiving module is mounted to the processing module; mixing the pieces with a binder to form a mixture; and forming a unitary biodegradable solid from the mixture wherein the reduced organic waste pieces are converted to a unitary biodegradable solid (Forsberg, c. 1, l. 54-57; Figures 1 and 2; Claim 1).

16. With regard to **Claim 100**, Forsberg discloses the transferring further comprising the pieces traveling from the receiving module through at least one passageway to the processing module (Forsberg, Figures 1 and 2; Claim 1).

17. With regard to **Claim 101**, Forsberg discloses the transferring further comprising the pieces traveling to a form in the processing module (Forsberg, Figures 1 and 2; Claim 1).

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18. With regard to **Claim 66**, Forsberg discloses forming the unitary biodegradable solid comprising forming the mixture into a predetermined shape (Forsberg, Figures 1 and 2; Claim 1).

19. Forsberg does not explicitly disclose collecting organic matter by placing the organic matter in the receiving module when it is removed from the processing module (**Claim 99**); a biodegradable binder (**Claim 99**); drying the mixture (**Claim 99**); drying comprising heating the mixture (**Claim 68**); the removal of liquid water from the organic waste mixture (**Claim 69**); the reuse of the recovered water (**Claim 70**); the capture of water vapor resulting from drying of the shaped organic waste mixture (**Claim 71**); the conversion of the captured water vapor to liquid water (**Claim 72**); nor drying the mixture to a moisture content at which it is free of odors caused by microbial activity (**Claim 95**).

20. With regard to **Claim 99**, the capability of the receiving module to be carried to locations remote from the processing module for receipt of organic matter would be desirable in the process of Forsberg because it would allow for easier transport and handling of household refuse. Thus, it would have been obvious to one of ordinary skill in the art to make the receiving module separable for this purpose.

21. With regard to **Claim 99**, it would have been obvious to one of ordinary skill in the art to make the binder biodegradable in order to obtain an environment-friendly product.

22. With regard to **Claim 99**, Kubota discloses a method of processing organic waste comprising: providing a receiving module removably mounted to a processing module;

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collecting organic waste by placing the organic waste in the receiving module when it is removed from the processing module; reducing the organic waste to pieces by operating a reducing element located in the receiving module while the receiving module is mounted to the processing module; and drying the mixture to obtain a dried organic waste product (Kubota, "Abstract;" c. 1, l. 45-64; Claims 1 and 3).

23. With regard to **Claim 68**, Kubota discloses drying comprising heating the mixture (Kubota, "Abstract;" c. 1, l. 45-64; Claims 1 and 3).

24. With regard to **Claims 69-72, and 95**, Kubota discloses removal of liquid water from the organic waste mixture, the reuse of the recovered water (Kubota, c. 1, l. 13-24), the capture of water vapor resulting from drying of the shaped organic waste mixture, the conversion of the captured water vapor to liquid water (Kubota, c. 1, l. 13-24 and 45-63), and drying of the raw organic waste to a moisture content characteristic of lack of malodor (Kubota, c. 1, l. 29-35; c. 4, l. 45-67).

25. Thus, it would have been obvious to one of ordinary skill in the art to modify the process taught by Forsberg with the drying and water treatment/process step order taught by Kubota in order to maximize the efficiency of waste processing, minimize wasteful use of water, and obtain a more desirable end-product.

26. **Claim 73** is rejected under 35 U.S.C. 103(a) as being unpatentable over Lazareth et al. (FR 2,248,994) (refer to translation provided on February 23, 2004) in view of Kubota et al. (US 5,634,600) as applied to **Claims 68, 71-72 and 99** above, and further in view of Krulik (US 2004/0108277 A1).

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27. The aforementioned applied art does not explicitly disclose the liquid water obtained from the conversion of the captured water vapor being reused in a subsequent process for producing a unitary biodegradable solid (**Claim 73**).

28. With regard to **Claim 73**, Krulik discloses economical treatment of organic materials comprising methods of minimizing waster water discharges from, and fresh water inputs to, manufacturing processes (Krulik, p. 3, 0030). Krulik further discloses recycling water from one portion of a process to other process loops within the same process with high efficiency (Krulik, p. 3, 0030).

29. Thus, it would have been obvious to one of ordinary skill in the art to modify the process disclosed by the aforementioned applied prior art with the water reuse as taught by Krulik because one of ordinary skill in the art could have pursued the known potential options for maximizing process efficiency and minimizing process costs within his or her technical grasp with a reasonable expectation of success.

30. **Claim 73** is rejected under 35 U.S.C. 103(a) as being unpatentable over Forsberg (US 4,102,263) in view of Kubota et al. (US 5,634,600) as applied to **Claims 68, 71-72 and 99** above, and further in view of Krulik (US 2004/0108277 A1).

31. The aforementioned applied art does not explicitly disclose the liquid water obtained from the conversion of the captured water vapor being reused in a subsequent process for producing a unitary biodegradable solid (**Claim 73**).

32. With regard to **Claim 73**, Krulik discloses economical treatment of organic materials comprising methods of minimizing waster water discharges from, and fresh

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water inputs to, manufacturing processes (Krulik, p. 3, 0030). Krulik further discloses recycling water from one portion of a process to other process loops within the same process with high efficiency (Krulik, p. 3, 0030).

33. Thus, it would have been obvious to one of ordinary skill in the art to modify the process disclosed by the aforementioned applied prior art with the water reuse as taught by Krulik because one of ordinary skill in the art could have pursued the known potential options for maximizing process efficiency and minimizing process costs within his or her technical grasp with a reasonable expectation of success.

34. **Claims 74-78** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lazareth et al. (FR 2,248,994) (refer to translation provided on February 23, 2004) in view of Kubota et al. (US 5,634,600) as applied to **Claims 68, 69 and 99** above, and further in view of Kazemzadeh (US 5,772,721).

35. The aforementioned applied art does not explicitly disclose the water or biodegradable binder in the mixture being derived from the raw organic waste (**Claim 74**); the biodegradable binder being a carbohydrate (**Claims 75 and 77**); nor the heat activation of the biodegradable binder (**Claims 76 and 78**).

36. With regard to **Claims 75-78**, Kazemzadeh discloses combining organic waste material, a carbohydrate binder, and water to form organic and semi-organic, substantially odorless solid fertilizers (Kazemzadeh, c. 1, l. 5-10; c. 2, l. 42-51; c. 5, l. 9-11, 25-26, and 41-51); wherein the biodegradable carbohydrate binder is heat activated (Kazemzadeh, c. 2, l. 48-51).

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37. With regard to **Claim 74**, the presence of water and/or carbohydrates in reduced organic waste would have been common knowledge to a person of ordinary skill in the art at the time of the invention.

38. Thus, it would have been obvious to one of ordinary skill in the art to modify the process disclosed by the aforementioned applied art with the water and heat activated binder as taught by Kazemzadeh because one of ordinary skill in the art could have pursued the known potential options for maximizing process efficiency and minimizing process costs within his or her technical grasp with a reasonable expectation of success.

39. **Claims 74-78** are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsberg (US 4,102,263) in view of Kubota et al. (US 5,634,600) as applied to **Claims 68, 69 and 99** above, and further in view of Kazemzadeh (US 5,772,721).

40. The aforementioned applied art does not explicitly disclose the water or biodegradable binder in the mixture being derived from the raw organic waste (**Claim 74**); the biodegradable binder being a carbohydrate (**Claims 75 and 77**); nor the heat activation of the biodegradable binder (**Claims 76 and 78**).

41. With regard to **Claims 75-78**, Kazemzadeh discloses combining organic waste material, a carbohydrate binder, and water to form organic and semi-organic, substantially odorless solid fertilizers (Kazemzadeh, c. 1, l. 5-10; c. 2, l. 42-51; c. 5, l. 9-11, 25-26, and 41-51); wherein the biodegradable carbohydrate binder is heat activated (Kazemzadeh, c. 2, l. 48-51).

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42. With regard to **Claim 74**, the presence of water and/or carbohydrates in reduced organic waste would have been common knowledge to a person of ordinary skill in the art at the time of the invention.

43. Thus, it would have been obvious to one of ordinary skill in the art to modify the process disclosed by the aforementioned applied art with the water and heat activated binder as taught by Kazemzadeh because one of ordinary skill in the art could have pursued the known potential options for maximizing process efficiency and minimizing process costs within his or her technical grasp with a reasonable expectation of success.

44. **Claims 66, 68, 77 and 99** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kealey et al. (US 6,312,753 B1) in view of Brooks et al. (US 4,900,160).

45. With regard to **Claim 99**, Kealey discloses a process for producing a biodegradable solid of organic matter comprising: providing a kitchen mixer, wherein organic matter is reduced to pieces before it is dried; mixing the pieces with a biodegradable binder to form a mixture; and forming a unitary biodegradable solid form the mixture by drying the mixture wherein the reduced organic waste pieces are converted to a unitary biodegradable solid (Kealey, c. 54, l. 16-28).

46. With regard to **Claim 66**, Kealey discloses forming the unitary biodegradable solid comprising forming the mixture into a predetermined shape (Kealey, c. 54, l. 16-28).

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47. With regard to **Claim 68**, Kealey discloses the drying comprising heating the mixture (Kealey, c. 54, l. 16-28).

48. With regard to **Claim 77**, Kealey discloses a carbohydrate as the biodegradable binder (Kealey, c. 54, l. 16-28).

49. Kealey does not explicitly disclose providing a receiving module removably mounted to a processing module; collecting organic matter by placing the organic matter in the receiving module when it is removed from the processing module; reducing the organic matter to pieces before it is dried by operating a reducing element located in the receiving module while the receiving module is mounted to the processing module; nor transferring the pieces from the receiving module to the processing module while the receiving module is mounted to the processing module (**Claim 99**).

50. With regard to **Claim 99**, Brooks discloses a process utilizing a kitchen mixer comprising providing a receiving module removably mounted to a processing module; collecting organic matter by placing the organic matter in the receiving module when it is removed from the processing module; reducing the organic matter to pieces before it is dried by operating a reducing element located in the receiving module while the receiving module is mounted to the processing module; transferring the pieces from the receiving module to the processing module while the receiving module is mounted to the processing module; and mixing pieces to form a mixture (Brooks, c. 2, l. 3-37; c. 4, l. 15-33; Fig. 1).

51. Although the aforementioned applied art does not explicitly disclose “organic waste,” **Claim 99** is written broad enough to cover “organic waste” since one of ordinary

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skill in the art would recognize that a basic kitchen countertop mixer combined with an ordinary baking process (as seen above) would be capable of forming a unitary biodegradable solid from organic waste. Further, there is no reason to believe that organic waste would render an ordinary baking process utilizing a typical kitchen mixer inoperable.

52. Thus, it would have been obvious to one of ordinary skill in the art to try to modify the process of Kealey with the kitchen mixer of Brooks because one of ordinary skill in the art could have pursued the known potential mixing options within his or her technical grasp with a reasonable expectation of success.

Response to Amendments

Applicant's amendments filed February 5, 2009, with respect to the Claims have been fully considered and are accepted.

Response to Arguments

53. Applicant's arguments filed February 5, 2009, with respect to the amended claims (Applicant's Response, 2/5/09, p. 5-6) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made, as can be seen above.

Conclusion

54. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRITTANY M. MARTINEZ whose telephone number is (571) 270-3586. The examiner can normally be reached Monday-Friday 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached at (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BMM

/Brittany M Martinez/
Examiner, Art Unit 1793

/Stuart Hendrickson/

Primary Examiner, Art Unit 1793